# IMAGE PROCESSING VIRTUAL REALITY CONTROLLER SYSTEM AND METHOD

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#### BACKGROUND

[0002] One or more embodiments of the invention are directed to a virtual reality controller configured to interact with hardware components.

### **SUMMARY**

[0003] In general, in one aspect, one or more embodiments disclosed herein relate to a method, comprising: receiving, by a processor of a virtual reality controller system, a source file of a target hardware device; creating, by the processor, a virtual machine that emulates the target hardware device using the source file; and displaying an emulated target device controller on a display of the virtual reality controller system.

[0004] In another aspect, one or more embodiments disclosed herein relate to a method for using an emulated target device controller to control a responding device, comprising: receiving, by the emulated target device controller, an instruction from a user to control the responding device; determining that the instruction is compatible with the emulated target device and the responding device; and causing the responding device to execute a command that corresponds to the instruction.

[0005] In yet another aspect, one or more embodiments disclosed herein relate to a non-transitory computer readable medium comprising computer readable program code, which when executed by a computer processor, enables the computer processor to: receive a source file of a target hardware device; create a virtual machine that emulates the target hardware device using the source file; and display an emulated target device controller on a display.

[0006] Other aspects and advantages of the invention will be apparent from the following description and the appended claims.

## BRIEF DESCRIPTION OF DRAWINGS

[0007] FIG. 1 shows a virtual reality controller system according to one or more embodiments of the invention.
[0008] FIG. 2 shows a virtual reality controller method according to one or more embodiments of the invention.
[0009] FIG. 3 shows a virtual reality controller method according to one or more embodiments of the invention.
[0010] FIG. 4 shows a virtual reality controller method according to one or more embodiments of the invention.

#### DETAILED DESCRIPTION

[0011] Specific embodiments will now be described in detail with reference to the accompanying figures. Like elements in the various figures are denoted by like reference numerals for consistency. Like elements may not be labeled in all figures for the sake of simplicity.

[0012] In the following detailed description, numerous specific details are set forth in order to provide a more thorough understanding of one or more embodiments of the invention. However, it will be apparent to one of ordinary skill in the art that the invention may be practiced without these specific details. In other instances, well-known features have not been described in detail to avoid unnecessarily complicating the description.

[0013] Throughout the application, ordinal numbers (e.g., first, second, third, etc.) may be used as an adjective for an element (i.e., any noun in the application). The use of ordinal numbers is not to imply or create a particular ordering of the elements nor to limit any element to being only a single element unless expressly disclosed, such as by the use of the terms "before", "after", "single", and other such terminology. Rather, the use of ordinal numbers is to distinguish between the elements. By way of an example, a first element is distinct from a second element, and the first element may encompass more than one element and succeed (or precede) the second element in an ordering of elements.

[0014] It is to be understood that the singular forms "a", "an", and "the" include plural referents unless the context clearly dictates otherwise. Thus, for example, reference to "a vehicle" includes reference to one or more of such vehicles. Further, it is to be understood that "or", as used throughout this application, is an inclusive or, unless the context clearly dictates otherwise.

[0015] Terms like "approximately", "substantially", etc., mean that the recited characteristic, parameter, or value need not be achieved exactly, but that deviations or variations, including for example, tolerances, measurement error, measurement accuracy limitations and other factors known to those of skill in the art, may occur in amounts that do not preclude the effect the characteristic was intended to provide.

[0016] Embodiments of the invention generally relate to a virtual reality controller system. Embodiments of the invention generally relate to a method for using a virtual reality controller system to control a responding device. Embodiments of the invention generally relate to a non-transitory computer readable medium comprising computer readable program code.

[0017] FIG. 1 shows a virtual reality controller system (100) according to one or more embodiments of the invention. As shown in FIG. 1, the system may comprise various components, including a processor (102), a first communication module (104), a sensor module (106), and an output module (108). Each of these components is described in more details below.

[0018] In one or more embodiments of the invention, the processor (102) may be an integrated circuit for processing instructions. For example, the processor (102) may be one or more cores, or micro-cores of a processor.

[0019] In one or more embodiments of the invention, the first communication module (104) may comprise an antenna and a receiver. The first communication module (104) may further comprise an encryption module configured to encrypt and decrypt and establish secure channel with various other hardware components.

[0020] In one or more embodiments of the invention, the sensor module (106) may include one or more sensors—an infrared sensor, an accelerometer, a luminescence sensor, an image acquisition module (e.g., camera), etc.